

**El Camino College
Division of Natural Science
Environmental Horticulture
Program Review
2007-2008
Conducted by: Ron LaFond**

I. Overview

A. Description of Program

The Environmental Horticultural program is designed to prepare both the continuing and newly enrolled horticulture students for a career in the field of ornamental horticulture. The Horticulture program offers a valuable service to the community by providing opportunities for returning horticulture students to upgrade their horticultural skills and knowledge with the most currently available information making them more valuable to their employers in a competitive market place. For the new Horticulture student, the information, skills and training prepare them for employment in the green industry. The skills and knowledge gained from the Environmental Horticulture Program prepare the student for work in landscape maintenance at institutional or private levels alike, in the fields of landscape nurseries, landscape design, landscape installation and maintenance and landscape irrigation.

The instruction received by Environmental Horticultural students includes plant identification. This series of three classes shows students at least three hundred of the more commonly used plants in Southern California landscapes, weeds commonly found in landscapes, along roadsides and in undeveloped areas, as well as edible, medicinal and poisonous plants found locally. The Plant Propagation class investigates various techniques commonly used in the field of plant propagation, putting the Horticulture student in a position to successfully work for a commercial grower or to start up their own nursery. The Pest Control class prepares the Horticulture student for the California Department of Pesticide Regulation licensing process and state examination. The care and culture of landscape plants is the major focus in the General Horticulture class. General Horticulture also acts as an overview of the other classes taught in the Environmental Horticulture program. Our newest addition to our arsenal of instruction is Basic Landscape Irrigation. As the course title implies, the basics of landscape irrigation are the primary focus; covering parts, installation techniques and basic hydraulics, water management and water conservation. The Soils and Fertilizer class cover the elements of soil care and fertilizer use and application.

All of the classes offered at El Camino College through the Environmental Horticultural Program are necessary elements for successful landscape installers or maintenance specialists, nursery and greenhouse professionals as well as the serious gardening enthusiast. All of our Horticulture classes in the Department of Environmental Horticulture are presented by instructors having both the knowledge and working experience in the field of environmental/ornamental horticulture.

B. Status of Previous Recommendations

No previous recommendations exist nor have previous program reviews been undertaken. However, based on previous experience, the following recommendations are offered.

II. Program Statistics

A. Demand: FTES by Course/Program

Instructions: Analyze the FTES by Course/Program using 1st census data and answer the following questions. At a minimum, your analysis must include a 3-year cycle comparing like semesters.

Course	Year 1 (Fall 2007)	Year 1 (Spring 2007)	Year 2 (Fall 2006)	Year 2 (Spring 2006)	Year 3 (Fall 2005)	Year 3 (Spring 2005)
HORT 41 – General Horticulture	**3.93	*2.45	**2.76	*5.47	**4.89	*3.27
Hort 42 – Plant Propagation		*3.03		*2.67		*2.87
Hort 44 – Ecology of Edible, Medicinal and Poisonous Plants		*†		*†	*	
Hort 46 – Pest Control		*0.96		*1.81		*1.70
Hort 53 – Soils and Fertilizers	**3.56		**1.70		**1.70	
Hort 54 – Landscape Design	**†2.12		**†1.91			
Hort 55 – Plant Identification-Trees	**†2.23		**†2.12		**4.63 Hort 52A - Inactivated ID Class	
Hort 56 – Plant Identification-Shrubs, Vines and Groundcovers		*†2.67				
Hort 60 – Basic Landscape Irrigation	**†3.56					
Hort 95abcd – Cooperative Career Education	N/A	N/A	N/A	N/A	N/A	N/A
Hort 99abc – Independent Study	N/A	N/A	N/A	N/A	N/A	N/A
	15.4	9.11	8.49	9.95	11.22	7.84

With the exceptions of Hort 41, Hort 95abcd and Hort 99abc, all Horticulture classes are offered as “Fall Only” or “Spring Only” classes.

** indicates “Fall Only” classes

* indicates “Spring Only” classes

† indicates a new class taught for the first time

Given the data, can you recognize any trends in course demand in any of the Program’s courses?

The evidence seems to be pointing to an overall trend of growth. The Horticulture Program was in a decline after the full-time faculty member’s retirement. Since that time a new full-time faculty member has been hired and is in the process of developing essentially a “new” Horticulture Program. New classes to the Program have been introduced and more new classes are being developed.

- Hort 41 enrollment declined after 2006. We believe the reason was the change of the course outline eliminating the fulfillment of a science requirement. As we are developing the program attendance is again increasing.
- Hort 42 is showing a distinct increase in enrollment.
- Hort 46 was taught by the new full-time faculty in Spring 2006 and an adjunct professor in Spring 2007. At this time there is no particular reason for the drop in enrollment.
- Hort 53 is showing a distinct increase in enrollment.
- Hort 54 is a new introduction based on an old class (formerly Hort 52B last taught in Fall 2004 with its last FTES numbers at 1.27). The numbers show a distinct increase in enrollment.
- Hort 55 and 56 are both new additions (formerly 52A) Enrollment is down from the original Hort 52A but is now trending upwards.
- Hort 60 is a new introduction and therefore it is too soon to tell, although the first semester Hort 60 was offered showed good enrollment and retention.

What are you doing to respond to trends?

The 2005-2006 semester was the turning point for most classes in the Horticulture Department. This is when the new full-time faculty entered the department and the transition began to a “working” Horticulture Program. The Horticulture Department is in the process of developing new classes to meet the growing needs of the Horticulture Student in the Torrance and South Bay region.

3. Should a recommendation be written addressing the data? Yes No
(If yes, list.)

Hort 41 – the course outline will be rewritten to include lab component making the class “hands-on” and therefore providing a better introduction to the Horticulture Program.

Hort 46 – make an attempt to determine the downward trend in enrollment

B. Offerings: Fill Rate*

Instructions: Review and analyze the fill rate data (including the fill rate per course for both day and evening), provided by Institutional Research for this program for a three year cycle and answer the following questions:

Average fill rate of courses in program: How does this program compare to:

Course	Year 1 (Spring 2007)	Year 2 (Fall 2006)	Year 2 (Spring 2006)	Year 3 (Fall 2005)	Year 3 (Spring 2005)
Day classes	20.0%	47.5%	70.6%	49.2%	61.0%
Evening classes	34.9%	53.8%	55.2%	59.3%	50.8%

Given the data, is the program in a growth mode? Yes No
 Comment.

There is uncertainty as to whether these numbers are truly reflecting the direction the Horticulture Department is heading. Fill rate numbers appear to be on a decline, however, when compared against the campus wide retention rate and success rate numbers the Horticulture Program does in fact appear to be in a growth mode.

What adjustments are indicated?
 Explain.

The major adjustment to address fill rates in the Horticulture Department is to reduce the number of seats required to fill the classes. Reasons for reduced seat numbers such as safety, challenges teaching classes outdoors and overall effectiveness of instruction are explained in other portions of this program review. The main budgetary result would be that if the program continues to grow, the need would arise to offer additional sections. The budgetary impact is hiring another instructor.

Should a recommendation be written that addresses the data? Yes No
 (If yes, list.)

It is recommended the required seat number to fill Horticulture Department classes be reduced to twenty (20) to twenty-five (25) students depending on the specific class:

- Hort 41 – 25 maximum
- Hort 42 – 20 maximum
- Hort 44 – 25 maximum
- Hort 46 – 25 maximum
- Hort 53 – 20 maximum
- Hort 54 – 25 maximum
- Hort 55 – 25 maximum
- Hort 56 – 25 maximum
- Hort 60 – 20 maximum

* Percent of fill of each class at census.

C. Scheduling: Student Satisfaction with Scheduling

Instructions: Complete the chart below. Indicate the time when sections of courses in the program are currently scheduled to start. Analyze the data provided by Institutional Research on student satisfaction with scheduling in the program and answer the questions.

Course	During the early morning before 10 am	During the late am/early pm 10am –1:55 pm	During the late afternoon 2 pm -4:25 pm	During the evening 4:30 & later	During the weekend	During the summer	Via Telecourse	Via Online
Hort 41			4 – 5:25 PM	6 – 9:10 PM				
Hort 42				6 – 9:10 PM				
Hort 44 Lect. & Lab				6 – 8:05 PM +6 – 9:10 PM				
Hort 46				6 – 9:10 PM				
Hort 53				6 – 9:10 PM				
Hort 54				6 – 9:10 PM				
Hort 55				6 – 9:10 PM				
Hort 56				6 – 9:10 PM	Sat- 9 AM– 12:10 PM			
Hort 60 Lect. & Lab					Sat- 8 AM– 1:25 PM			
Hort 95abcd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hort 99abc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

What (if anything) is indicated by the student satisfaction with scheduling?

The makeup of students in the Horticulture classes, are typically working students, and often working in the Green Industry. They are unable to attend daytime classes. In other words, the evening classes and Saturday classes are the appropriate classes for Horticulture students.

Are there time periods of high student demand which are not being addressed? ___ Yes ___ X No
How could such demand be addressed?

After the completion of a Horticulture Department Student Survey, just over 70% of the students indicated their satisfaction with classes held after 6:00 PM.

3. Should a recommendation be written addressing this area? _____ Yes ___ X No
(If yes, list.)

D. Retention and Success

1. Retention

Instructions: Review and analyze the data on retention (course completion with a grade other than W) over a three-year cycle comparing day to evening classes, term to term (e.g. fall to spring, spring to summer, etc.), and course levels.

1. Given the data, what trends are observed?
 Comment.

After exploring the *Standard Data Set* charts provided by campus, the retention numbers for the Horticulture Department are as good as, or better than, the Division or the campus as a whole. The table below shows the numbers directly from the *Standard Data Set* charts.

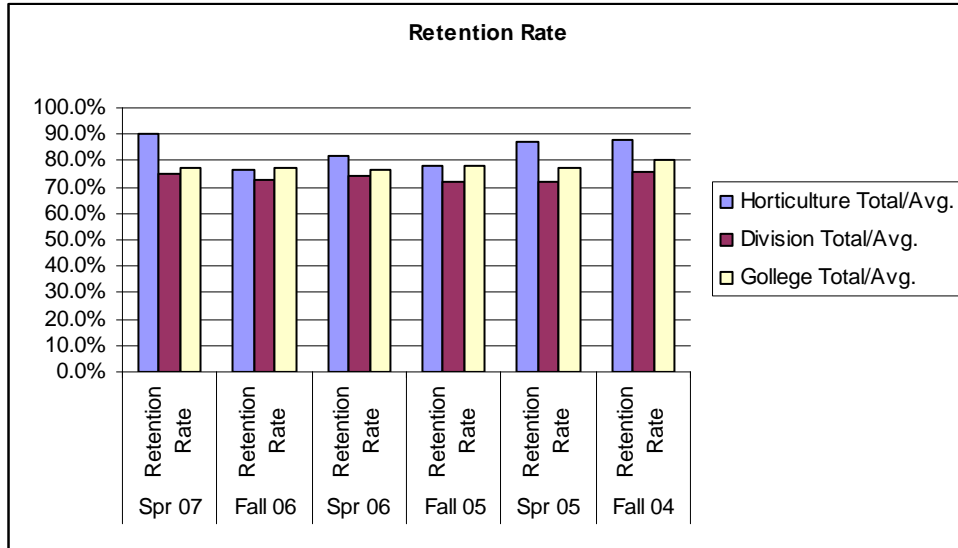
	(Spring 2007)		(Fall 2006)		(Spring 2006)		(Fall 2005)		(Spring 2005)		(Fall 2004)	
	Only Completers	Retention Rate	Only Completers	Retention Rate	Only Completers	Retention Rate	Only Completers	Retention Rate	Only Completers	Retention Rate	Only Completers	Retention Rate
Horticulture Total /Avg.	82.3%	90.0%	83.3%	76.2%	93.0%	81.9%	96.6%	77.9%	86.8%	87.5%	81.7%	87.7%
Division Total /Avg.	84.5%	75.2%	82.4%	72.4%	81.8%	74.3%	82.4%	71.9%	81.4%	72.3%	82.8%	75.6%
College Total /Avg.	83.3%	77.2%	81.5%	77.6%	82.6%	76.6%	81.9%	77.7%	82.7%	77.6%	82.0%	80.3%

2. Should a recommendation be written addressing the data? _____ Yes X No
 (If yes, list.)

3. Success Rate

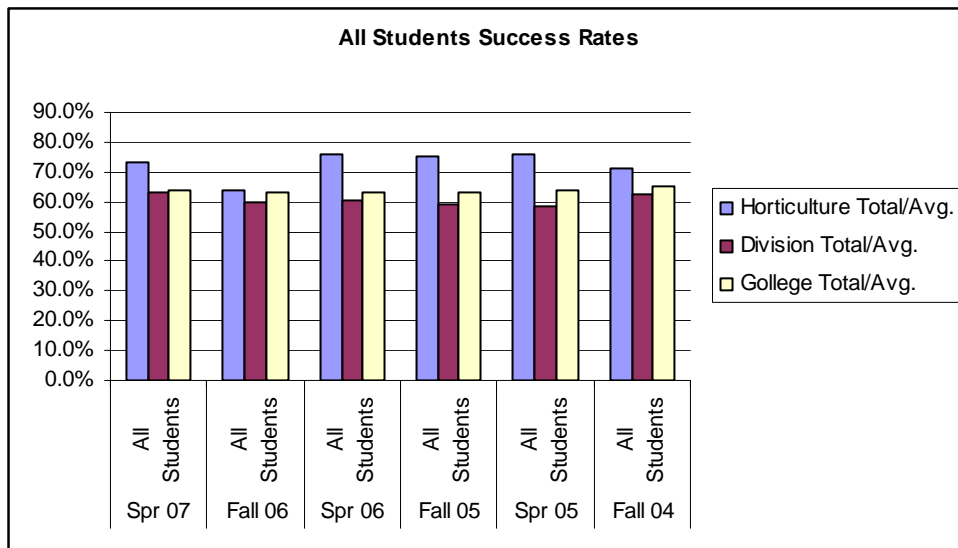
The tables and charts below clearly show that the Horticulture Program's success rates exceed those of the Division and campus success rates (information taken from the *Standard Data Set* charts).

	Retention Rates					
	Spr 07 Retention Rate	Fall 06 Retention Rate	Spr 06 Retention Rate	Fall 05 Retention Rate	Spr 05 Retention Rate	Fall 04 Retention Rate
Horticulture Total/Avg.	90.0%	76.2%	81.9%	77.9%	87.5%	87.7%
Division Total/Avg.	75.2%	72.4%	74.3%	71.9%	72.3%	75.6%
Gollege Total/Avg.	77.2%	77.6%	76.6%	77.7%	77.6%	80.3%



Student Success Rates

	Spr 07 All Students	Fall 06 All Students	Spr 06 All Students	Fall 05 All Students	Spr 05 All Students	Fall 04 All Students
Horticulture Total/Avg.	72.9%	63.5%	76.2%	75.2%	76.0%	71.0%
Division Total/Avg.	63.3%	59.5%	60.4%	59.0%	58.6%	62.2%
Gollege Total/Avg.	63.9%	62.8%	62.8%	63.3%	63.7%	65.4%



The Horticulture Department is trying to bolster its numbers through the introduction of new classes as well as the offering Saturday classes. The Department is also trying to increase public awareness of the

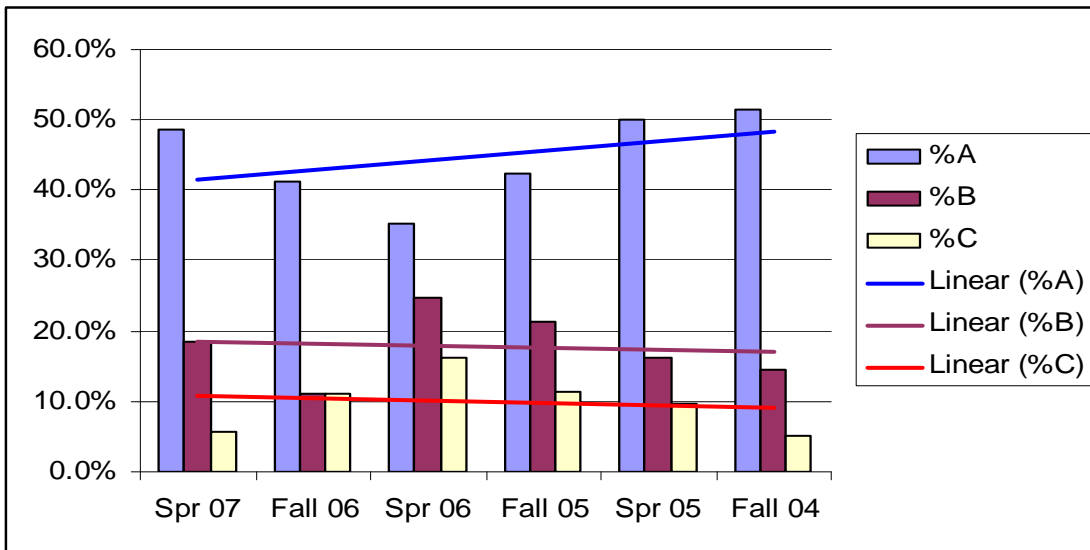
Program through the development of an Advisory Committee, and associations with facilities such as the Madrona Marsh and the South Coast Botanical Garden. The modest decline in retention occurred during the transition period of retiring and newly hired full-time faculty. It appears there is an increase in retention as the Horticulture Program is growing and becoming more stable.

Instructions: Review and analyze the data on success rate (students who earned a grade of A,B,C, or Credit) over a three-year cycle comparing day to evening classes, term to term (e.g. fall to spring, spring to summer, etc.), and course levels and answer the following questions:

1. What trends are observed?

Based on the table and chart below (information taken from the *Standard Data Set* charts), trend lines show a slight decline in A-grades and a slight increase in B- and C-grades during the three year period in question. A-grades seem to be on an increase during the in Fall '06 and Spring '07 semesters.

	Spr 07	Fall 06	Spr 06	Fall 05	Spr 05	Fall 04
%A	48.6%	41.3%	35.2%	42.5%	50.0%	51.4%
%B	18.6%	11.1%	24.8%	21.2%	16.3%	14.5%
%C	5.7%	11.1%	16.2%	11.5%	9.6%	5.1%



2. Should a recommendation be written addressing the data? _____ Yes X No
(If yes, list.)

No recommendation is necessary at this time.

III. Curriculum
A. Course and Content

1. Courses Not Offered

Instructions: Indicate the total number of courses in the program and list all courses in the program which are in the catalog but have not been offered in the last three years. Refer to this list to answer the following questions:

There are currently twelve (12) classes offered through the Horticulture Department. All classes are offered, in seasonal rotation, every other semester, with the exception of General Horticulture which is currently offered every semester.

1. Given the data, are there courses that should be inactivated? _____ Yes X No
Comment.

There are no courses that require inactivation at this time.

2. If there are courses not offered in the last three years that you do not wish to inactivate, what reasons are there to keep them active?

No courses apply.

3. Should a recommendation be written addressing the data? _____ Yes X No
(If yes, list.)

No recommendation is necessary at this time.

2. Course Revisions and Additions

Instructions: Utilize the Course Review Chart from the Curriculum Office to answer the following:

1. Are there course outlines that should be revised? X Yes _____ No
(If yes, list.)

Hort 41–General Horticulture – needs a lab element incorporated into the outline of Hort 41

2. Are there courses inconsistent with current practice in the field? ___ Yes X No
Explain.

All classes currently being offered within the Horticulture Program represent current, proper practices in the Green Industry.

3. Should new courses to be added to the program? X Yes _____ No

Explain.

To better provide Horticulture students with the necessary education and training in horticulture, the following classes should be added to the Environmental horticulture program:

- Landscape Maintenance
- Advanced Landscape Design
- Advanced Landscape Irrigation
- Nursery and Greenhouse Management
- Plant Taxonomy

4. Are adjustments necessary to the conditions of enrollment (Prerequisite, Corequisite, Recommended Preparation, and Enrollment Limitations) for a specific course to increase student success?

Yes No Uncertain

Comment.

5. If the program offers a degree and/or certificate, list them and indicate when the requirements were last reviewed? (If not applicable, skip to Question 7.)

Hort 41 – last reviewed in March 2005
Hort 42 – last reviewed in March 2005
Hort 44 – last reviewed in November in 2003
Hort 46 – last reviewed in November 2005
Hort 53 – last reviewed in October 2005
Hort 54 – last reviewed in February 2006
Hort 55 – last reviewed in February 2006
Hort 56 – last reviewed in February 2006
Hort 60 – Course Outline of Record approved in October 2006
Hort 95abcd – last reviewed in Spring 2007
Hort 99abc – last reviewed in October 2004

Certificate of Achievement in Horticulture – to include: Horticulture 41, 42, 46, 53, 54, 55, 56; one course from: Biology 15, 16, Horticulture 44, 60, 95abcd; total units: 23-25 (pending board approval on February 19, 2008)

6. Are these degree and/or certificate requirements inconsistent with current practice? Yes No
Explain.

All classes transfer to the CSU system. Hort 55 and Hort 56 transfer to the UC system as well.

7. Is there a need to create or delete a degree and/or certificate? Yes No
Explain.

Not at this time. In the future, however, with the addition of new classes, it may be necessary to rework the current certificate program and add perhaps two more certificates. This would allow the creation of certificates more specific to the various fields in horticulture. Two examples for new certificates after the addition of new classes may include a certificate in landscape design and maintenance and a certificate in nursery and greenhouse management.

8. Should any recommendations be written that address the above responses? _____ Yes X No
(If yes, list.)

No recommendations are necessary at this time.

***B. Articulation**

Instructions: Articulation is the process by which courses taken at ECC can be used to satisfy subject matter requirements at another college or university. This is important in the transfer process for students. To help you in this area, you can review articulation agreements at www.assist.org, the California Articulation Number Guide or meet with the Articulation Officer, Lori Suekawa (ext. 3517).

Are there any courses in your curriculum which are part of a lower division preparation for the major that are not articulated with our major transfer institutions?

No.

2. What problems, if any, are there in articulating these courses?

None.

3. Should a recommendation be written addressing above responses? _____ Yes X No
(If yes, list.)

No recommendations are necessary at this time.

C. Instruction and Assessment

1. Learning Methods

1. What learning methods are incorporated inside and outside the classroom in the program to promote student success?

Explain.

Lectures in the Horticulture department include a variety of media, methods and techniques. Since there are no classrooms specifically set aside for the Horticulture Program, it is difficult to maintain displays, work stations, demonstration areas, etc. In-class sessions are conducted with as many study aides as

possible in such an environment. Displays the size of which can be carried back and forth from vehicles (when parking allows) or from offices (and rarely from the Nursery/Greenhouse area due to the distance) are used. PowerPoint and slide shows are often used to help convey ideas, materials and methods of the industry. Outdoor walkabouts are an integral part of the Plant Identification classes. Field trips to arboreta and botanical gardens also play an important part of the education process to the Plant Identification classes. Field trips to nurseries are a part of the Plant Propagation class. Guest speakers provide more selective and in-depth information on topics that may otherwise not be covered by the Horticulture instructors. Students are expected to spend time on their own studying, reviewing and researching materials covered in the classroom environment. The Horticulture program tries to provide a hands-on environment for the horticulture student as well. This is often difficult due to the lack of space and distances between classrooms and the Nursery/Greenhouse areas. At this time, it is still difficult to bring the students outdoors to teach many hands-on techniques. The lighting (or lack there of) in the Nursery/Greenhouse area make it difficult to carry out necessary outdoor labs.

2. Should a recommendation be written addressing above response? Yes No
(If yes, list.)

- The Horticulture program must have dedicated classrooms in closer proximity to the Nursery/Greenhouse area to allow more hands-on lab time to students. Remodeling of the greenhouse to include electricity, lighting, upgraded plumbing, telephone, and internet access.
- Hort 53 – Soils and Fertilizers requires a traditional “wet” laboratory environment to perform the laboratory exercises and experiments typical to such a class.
- All other Horticulture classes need to have an outdoor laboratory environment adjacent to the classroom facilities. Currently, such facilities do not exist. The addition of weed cloth, gravel, irrigation, and outside lighting are needed
- It is imperative that class enrollment sizes for the Horticulture Program be reduced to manageable numbers. Classes over twenty-five (25) students become unwieldy and unsafe.
- Approximate expenses of \$500,000 based upon numbers taken from the 2008-09 “PlanBuilder”.

2. Assessment

How do you evaluate the extent to which the learning objectives, skills, and competencies are being met?

Courses

All Horticulture students receive letter grades. Grades are given based on course-work, including tests, laboratory exercises, and projects and techniques displayed.

Program

As the Horticulture Program is being newly revised, all efforts are being made to align the program with today’s Green Industry. Efforts are underway to develop an Advisory Committee, better enabling the Horticulture Program to stay current with the needs of industry.

How do you use the results of the above evaluation to improve student learning and the quality of the program?

The results from future Advisory Committee meetings should help guide the Horticulture Program into a future better suited to serve Horticulture students of El Camino College, the South Bay region and Southern California as a whole. The findings will better prepare the university transfer student.

Should a recommendation be written addressing this area? X Yes No
(If yes, list.)

Development of a Horticulture Program Advisory Committee.

IV. Program Requirements
A. Instructional Support

1. Identify key instructional support areas used by the program.

Libraries & Programs:

Y	Library		Special Resource Center		Basic Skills Study Center		Library Orientation
	Music Library		Puente Program		Honors Transfer Program		Other (Please list.)
	Learning Resource Center Media Materials Collection		Assessment/Testing Office		Counseling	Y	Horticulture Department Nursery/Greenhouse area
	EOP&S/CalWORKS		Transfer Center		First Year Experience	Y	ECC Campus landscapes
	Learning Communities		Project Success		Honors Transfer Program		

Computer Labs & Tutoring:

	LMTC Computer Commons		SRC High Technology Center		Other Computer Lab: Please list.		Writing Center
	CAI MAC Lab		Writing Lab				LRC Tutorial Program
	CAI Windows Lab		Math & Science Lab				Math Tutoring
	TOP Lab		Keyboarding Center				SRC Tutorial Program
	Hawthorne BTC						EOP&S Tutoring
	Inglewood Center						

Faculty Support Services:

	Graphic Arts	Y	Copy Center		Distance Education		Other (Please list.)
	Media Services AV Production	Y	Tech Services Help Desk		Teleconferences		
	Media Services AV Equipment Distribution	Y	Support Staff		Web Conferences		
Y	ECC Vehicles		ECC hosted Websites	Y	Staff Development		
Y	ECC E-mail						

2. Do you have some instructional support needs that are not being met? X Yes ___ No
 Comment.

- Lack of lighting in the Nursery/Greenhouse area.
- Classrooms/labs are not in close proximity to the Nursery/Greenhouse area.
- Class size requirements are too large for the types of classes being taught.
- Campus (living laboratory) is woefully short of suitable plant materials necessary for educational purposes.

3. Should a recommendation be written to address your needs? X Yes ___ No
 (If yes, list.)

- The Nursery/Greenhouse area must receive adequate lighting both in the Nursery area as well as inside the Greenhouse.
- To better serve the Horticulture students, classroom/lab accommodations must be made immediately adjacent to the Nursery/Greenhouse area. This may involve remodeling the greenhouse or even adding a room.
- Maximum class sizes for Horticulture classes taught typically outdoors must have class sizes reduced to a maximum of twenty-five (25) students for practical reasons as well as for safety reasons.
- The Horticulture Program needs to be involved in the selection of plant materials as part of the ongoing, new development/construction at the El Camino College campus; since the campus is used as a living laboratory for students, not just of the Horticulture Program but from various other Life Science Programs as well, it is imperative the plant diversity on campus be increased.
- Approximate expenses of \$25,000 based upon numbers taken from the 2008-09 "PlanBuilder".

B. Facilities and Equipment

1. Does the program make effective use of its facilities and equipment? Explain.

Not as well as possible. The distance factor from classroom to Nursery/Greenhouse area inhibits the ability to use those facilities at need.

2. Are adequate facilities, equipment and supplies available for the program? ____ Yes X No
Explain.

Where classes in the Horticulture Program currently stand, materials and equipment are in good supply. The Horticulture Program greatly lacks in facilities, however. As previously stated, the Horticulture Program requires permanent classroom/lab spaces immediately adjacent to the Nursery/Greenhouse area for the program to continue to grow. It is important to the Horticulture Program that the instructors have room for the installation of permanent displays, for on-going demonstrations, for storage areas, areas to perform lab demonstrations and exercises, areas for students to perform the tasks to develop the necessary skills and meetings with Green Industry representatives.

3. Are the facilities and equipment adequately maintained? X Yes ____ No
Explain.

The current facility, the nursery/Greenhouse area is maintained by the full-time Horticulture instructor. Upon request, and on occasion with no request, Grounds Maintenance will perform weed control in the Nursery/Greenhouse area. We are grateful for that. However, in the past, people have let themselves into the Greenhouse, shutting off the Greenhouse irrigation system. The results were the losses of many plants necessary for the Horticulture classes.

4. Should a recommendation be written addressing the data? X Yes ____ No
(If yes, list.)

- Dedicated classroom/lab space must be made available immediately adjacent to the Nursery/Greenhouse area. This will involve lighting, irrigation and ground cover to name a few.
- Night lighting must be made available in the Nursery/Greenhouse area.
- Approximate expenses of \$525,000 based upon numbers taken from the 2008-09 "PlanBuilder".

C. Staffing

Instructions: Analyze the data on FTEF, adjunct FTEF, and the FT/PT ratio for the most recent fall semester and answer the following questions:

FTEF (full-time equivalent faculty): # 1.400

Number of full-time FTEF: # 1.100

Number of adjunct FTEF: # 0.300

FT/PT load ratio: 78.6/21.4

How do the program numbers compare to a like semester (Fall to Fall) three years ago or the previous program review?

Fall 2005 FTEF was 1.083

FTEF = .683

Adjunct FTEF = .4
 FT/PT = 63.1/36.9

What do the program data indicate? Comment on any trends or unusual data.

The classes taught in the Horticulture Program are almost entirely taught by one full-time faculty. Two adjunct faculty teach three different classes – one class in fall and two in spring

How does the FT/PT ratio benefit or harm the program?

No benefit, no harm.

Do you have a faculty mentoring program? _____ Yes X No
 Describe.

There is no faculty mentoring program in affect in the Horticulture Program. The Horticulture Program consists of a single full-time faculty member teaching most all of the classes in the Program. Two adjunct faculty teach two to three classes over the course of the school year.

How does faculty maintain currency in their field?

All members of faculty have different licenses and certificates in the field that require annual or biennial continuing education courses to maintain currency in those licenses of certificates. Faculty also makes use of the various Staff Development courses offered.

Fill in the faculty status data below and answer the questions that follow.

Name	Reassigned time (how much in %)	Currently on leave (check)	Retired in last 2 years (check)	FT hired last 3 years (check)	Anticipated to retire in next 3 years (check)
Ron LaFond	0%			Y	
Kevin Kane	Adjunct				
Jim Osborne	Adjunct				

6a. How does this data impact the program?

No impact.

6b. Will this data affect the program in the future?

Not at this time.

From this information, can you identify present and future staffing needs? _____ Yes X No
 Explain.

If in the future the Horticulture Program is able to continue adding new classes, there will be a need for more adjunct faculty.

What is the department doing to address any future staffing needs?

Nothing at this time.

Should a recommendation be written addressing the data? _____ Yes __X__ No
(If yes, list.)

No recommendation is necessary at this time.

D. Planning

1. Does the program faculty and other personnel have a clear idea of what is happening in the program, where it is headed, what external changes are affecting it, and what changes need to be made in order to enable the program to adapt and continue to be successful? Explain.

This is a program of one full time and two adjunct faculty members. There is concerned about the lack of facilities required to successfully carry out and grow a program such as this. If this program is to succeed and to grow, it will require areas in which to grow. There is also the constant fear that the Environmental Horticulture Program will be canceled do to what is considered low enrollment. As stated earlier, standard enrollment for these classes is too high and must be adjusted downward to provide safe and effective classes.

2. What data, not currently provided, would be needed in order to improve planning for the development of the program? Explain.

None at this time.

3. What major external changes or trends do you expect to be of particular relevance to your discipline in the next five years?

The trend seems to be fewer students already in the Horticulture industry enrolling in the Horticulture Program. There also seem to be fewer transfer students taking Horticulture classes. The direction seems to be towards homeowners and hobbyists. All of this may change.

4. What will the implications of these changes or trends be for the program and how will the program need to respond?

Classes will evolve to support the changing environment. The Horticulture Department will develop, as an addition to current classes, classes more suited to the homeowner and hobbyist.

5. Based upon the information above, how would you like the program to evolve within the next five years?

Short-term “seminar-style” classes, including 8-week sessions held during the normal semester times, including weekends, would be a suitable for the Horticulture Program.

6. Should a recommendation be written addressing the data? _____ Yes X No
(If yes, list.)

No recommendation is necessary at this time.

V. Conclusion

There are many challenges needing to be overcome to bring the El Camino College Horticulture Program up to a level more competitive with other community colleges offering Horticulture Programs. The upside is that El Camino College does provide a Horticulture Program to the South Bay area offering Horticulture classes that stay current and informative thereby providing an invaluable service to not only the South Bay region but to all of Southern California. El Camino students leave well prepared to transfer to universities Horticulture programs or for a career in Horticulture.

1. Prioritized Recommendations

The class size requirements are unrealistic for a program such as this. Many different aspects of Horticulture classes are taught and even tested in an outdoor environment. Past experience shows that delivering lectures in an outdoor environment is difficult at best with twenty to twenty-five students—impossible with forty students. Larger size classes pose safety concerns. Sharp tools and power equipment are often used as part of outdoor classroom instruction and laboratory skills development. It becomes a point of concern when trying to watch over forty students working on various projects and using the varied equipment necessary to perform laboratory classes. Quality of education can also be greatly reduced in oversized Horticulture classes.

Recommendation 1

It is important that class sizes be reduced to a number not to exceed twenty-five students making the class sizes manageable and providing a safer environment for the students. Smaller, more manageable class sizes:

- Reduce safety concerns
- Increase effectiveness of lectures and labs
- Increase manageability of students during lecture
- Increase manageability of students during outdoor testing

Distance plays a major factor in the El Camino College Horticulture Department. Horticulture classes are held in Life Science classrooms, Chemistry classrooms, Natural Science classrooms, Physics classrooms and even Math classrooms. It is unfortunate that there are no classrooms available specifically for Horticulture; no place to leave permanent or changing displays, projects in progress, storage, etc. Even more unfortunate is the fact that the classrooms being used by the Horticulture Department are over a half mile away from the Nursery/Greenhouse area. Because of the distance, the Nursery/Greenhouse is underutilized largely due to the time spent in transit between classrooms and the Nursery/Greenhouse area.

Recommendation 2

For long-term success as well as to encourage growth in the Horticulture Program, the Horticulture Program is in dire need of:

- Classrooms in close proximity to the Nursery/Greenhouse laboratory area
- Additional storage in close proximity to the Nursery/Greenhouse laboratory area
- Approximate expenses of \$500,000 based upon numbers taken from the 2008-09 “PlanBuilder”.

Much work needs to be done to make the Horticulture Department a more competitive program among the remaining horticulture programs at other Community Colleges in Southern California. We are currently teaching classes almost exclusively at night. The Department’s nursery area has no night-lighting in the Nursery/Greenhouse area indoors or out making the area impractical and unsafe for night labs.

Recommendation 3

The Nursery/Greenhouse must be adequately lit for night classes to allow students to pursue studies and skills as well as work on lab assignments during the normal evening class periods. Proper lighting will also reduce any associated trip-and-fall hazards associated with such an area at night.

- Provide adequate lighting inside of the greenhouse structure
- Provide adequate lighting for the outdoor areas surrounding the Nursery/Greenhouse
- Approximate expenses of \$25,000 based upon numbers taken from the 2008-09 “PlanBuilder”.

Much of what goes on in the Horticulture Program depends on the campus outdoor environment. The campus at El Camino College is, for all practical purposes, a “living laboratory” used by the students of the Horticulture Program. In past years there were in excess of one hundred and fifteen different species of trees found on the campus; today there less than eighty different species. Plant Identification classes are now being taken off campus to other schools and public gardens to fulfill the curriculum requirements of at least one hundred and fifty different species per class. The El Camino College campus nears one hundred acres of landscaped area where many different plant specimens are capable of being grown. Recently, two new trees were added to the campus landscape—these two trees are already represented by as many as twenty (20) others of the very same species already on the El Camino campus.

Increased plant diversity on the campus will greatly increase the learning environment for the Horticulture students. It will also add to the overall aesthetic appeal to the El Camino Campus itself. With all of the renovations being done to the El Camino Campus, the Horticulture Program would very

much appreciate being included in the selection of plant materials being added to the newly developed landscape areas. The benefit would not only be to the Horticulture students at El Camino College but to the Biology Department and its students, to the entire campus community and to the surrounding community and neighborhoods as well.

Recommendation 4

Increasing the plant diversity of the El Camino campus will increase the potential for classes taught.

- Include faculty that continually uses the “living laboratory” of campus in plant materials selections for the campus

Faculty instructors have expertise in the fields in which they teach but are not necessarily expert in marketing research and advertising. It is imperative that Campus take a more proactive role in marketing and advertising for small programs, particularly vocational programs such as The Environmental Horticulture program.

Recommendation 5

Campus to provide focused marketing and advertising to the Horticulture Program

2. Major Needs

- Reduced maximum class sizes
- Classroom/lab areas in closer proximity to the Nursery/Greenhouse – approx. \$500,000
- Additional storage in close to the Nursery/Greenhouse (cost tied to classroom/lab costs immediately above)
- Night lighting in the Nursery/Greenhouse area – approx. \$25,000
- Focused marketing and advertising assistance from campus to bolster enrollment – approx. \$10,000

3. Strategies

- Direct mailing to local nurseries, school districts, cities, the County of Los Angeles, County Department of Agriculture, Department of Weights and Measures, U.S. Customs, local high school FFA agriculture/horticulture programs, etc. (hopefully with the help of campus)
- Development of a Advisory Committee
- Creation of new short-term seminar-style classes
- Develop a series of annual plant sales to bolster public awareness as well as to raise monies necessary to maintain a department such as Environmental horticulture

I would like to take this opportunity to offer my sincere gratitude to my former Dean, Barbara Perez and to my current Dean, Jean Shankweiler for their continued and ongoing support.